

NUTRIENT STUDIES IN THE 'OHI'A RAIN FOREST, HAWAII

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Analyses of soil and plant tissue nutrients are conducted in relation to the 'ohi'a dieback problem. The major site variations in the dieback territory, i.e. pahoehoe, 'a'a, eutrophic ash, oligotrophic ash and bog soil, are being described by nutrient regimes. Soil nutrient variations are also tested for possible effects of toxicity and/or nutrient imbalances as possible stress factors in the dieback syndrome. Moreover, the response of 'ohi'a and some undergrowth plants to these regimes is studied through vegetation structure and foliar nutrient analyses. In addition, the role of leaf nutrients in the loss-of-vigor process leading to dieback is under investigation.